

**TABLE 661-1  
UBWC GRADATION CRITERIA**

<b>Sieves (mm)</b>	<b>% Passing by Weight</b>
12.5	100
9.50	85 - 100
4.75	28 - 44
2.36	17 - 34
1.18	13 - 23
0.600	8 - 18
0.300	6 - 13
0.150	4 - 10
0.075	3.0 - 7.0

**TABLE 661-2  
UBWC MIX DESIGN CRITERIA**

<b>Property</b>	<b>Requirement</b>
Asphalt Content, %	5.0 (minimum)
Draindown Test, AASHTO T 305	0.1% max
Moisture Sensitivity, AASHTO T 283 <sup>A</sup>	85% min
Application Rate, lb/sy	70 lb/sy
Approximate Application Depth, in.	5/8"
Asphalt PG Grade, AASHTO M 320	PG 70-28 or PG 76-22

**A.** Specimens for AASHTO T 283 testing are to be compacted using the gyratory compactor. The mixtures shall be compacted using 100 gyrations to achieve specimens approximately 95 mm in height. Use mixture and compaction temperatures recommended by the binder supplier.

#### **661-4 CONSTRUCTION METHODS**

##### **(A) Equipment**

Use asphalt mixing plants in accordance with Article 610-5. Furnish paving machine with the following capabilities:

- (1) Self-priming paving machine capable of spraying the PMEM, applying the hot asphalt concrete overlay and screeding the surface of the mat to the required profile and cross section in one pass at any rate between 30 and 92 feet per minute.
- (2) Receiving hopper, feed conveyor, storage tank for PMEM material, PMEM emulsion single variable-width spray bar and a variable width, heated, vibratory-tamping bar screed.
- (3) Screed with the ability to be crowned at the center both positively and negatively and have vertically and horizontally adjustable extensions to accommodate the desired pavement profile and widths.
- (4) Sprayer system capable of accurately and continuously monitoring the rate of spray and providing a uniform application across the entire width to be overlaid.
- (5) Use pavers equipped with an electronic screed control that will automatically control the longitudinal profile and cross slope of the pavement. Control the longitudinal profile through the use of either a mobile grade reference(s), including mechanical, sonic and laser grade sensing and averaging devices, an erected string line(s) when specified, joint matching shoe(s), slope control devices or the approved methods or combination of methods. Unless otherwise specified, use a mobile grade reference system capable of averaging the existing grade or pavement profile over at least a 30 feet distance or by non-contacting laser or sonar type ski with at least four referencing stations mounted on the paver at a minimum length of 24